UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,156	08/09/2001	Joseph E. Algieri	10006369-1	3994

7590 03/06/2006	EXAMINER
HEWLETT-PACKARD COMPANY	CRAIG, DWIN M

Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>19 December 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-24 & 26-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3, 6-14, 17-24 and 28-31</u> is/are rejected.

7)☒ Claim(s) <u>4, 5, 15, 16, 26 and 27</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-24 and 26-31 have been presented for reconsideration based on Applicants'

arguments and amendments to the claims.

Response to Arguments

2.   Applicants' arguments presented in the 12/19/2005 responses have been fully considered.

The Examiner's response is as follows.

2.1   Applicants' have persuasively argued that the *Mason* reference does not expressly

disclose *predicting levels of performance parameters;* the Examiner withdraws the previously

applied 35 USC § 102(e) rejections. *More specifically*, the Examiner found applicants'

arguments on page(s) 8 & 9 of the 12/19/2005 responses persuasive.

2.2   As updated search has revealed new art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.

> 2.   Ascertaining the differences between the prior art and the claims at issue.
>
> 3.   Resolving the level of ordinary skill in the pertinent art.
>
> 4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3.   Claims 1-3, 6-14, 17-24 and 28-31 are rejected under 35 USC § 103(a) as being unpatentable over US Patent 6,487,562 Mason, Jr. et al., hereafter referred to as *Mason* in view of US Patent 5,345,579 Hynes, hereafter referred to as *Hynes*.

3.1   Regarding independent claims 1, 10 and 23 and using independent claim 1 as an example, the *Mason* reference discloses, *A method of assigning resources for a computer system design comprising:* (**Col. 1 line 66,** "The present invention provides a system and method for dynamically modifying parameters in a data storage system.") *receiving desired levels of performance parameters for a computer system design from a user via a user interface to a computer system,* (**Figure 2** Item 40 and **Col. 2 lines 21-31**), *the design including assignments of system resources to applications;* (**Col. 5 line 33,** "A User Interface (UI) **40** application which allows a user to modify the QOS (Quality of Service) for the system **10**." The Examiner notes that assigning a Quality of Service requirement for a disk array inherently means that some form

of "Application" like streaming video is being contemplated by the teachings of the *Mason*

reference), *modifying the design in response to said desired levels including modifying the*

assignments of the system resources; (**Col. 2 lines 50-57,** "the present invention include the

ability to make changes dynamically to the data storage system while in use."), *displaying for the*

user an indication of the predicted levels of performance for the modified design via the user

interface (**Col. 2 lines 66-67 and Col. 3 lines 1-2,** "Users can easily manipulate the system

settings using the GUI, including a features such as bar graphs and scales showing real-time

system settings and performance"). *Please also note the passage in Col. 5 lines 32-64.*

However, the *Mason* reference does not expressly disclose, *predicting levels of*

performance parameters for the modified design.

The *Hynes* reference discloses, *predicting levels of performance for the modified design*

(**Figures 2-4** and **Col. 5 lines 38-58,** more specifically line 38, *"The user may use the input*

module 202 to aid him in performance of steps 402 and 410" and line 51, *"In step 418, the*

model solution module 204 receives the model solution inputs 414 and generates performance

metrics 422 of the computer system model.).

It would have been obvious, to one of ordinary skill in the art, at the time the invention

was made, to have combined the *performance modifying* methods of *Mason* with the

performance prediction methods of *Hynes* because *"There are several advantages of using the*

fixed class workloads instead of the transaction workloads. First, the fixed class workloads

provide better approximations to the terminal and batch workloads than the transaction

workloads. Second, the fixed class workloads do not distort the performance metrics for those

terminal and batch workloads, which are specified using population values. Third, the fixed class

workloads yield the actual fixed class population sizes. " (**Col. 3 lines 30-39**) *Hynes.*

3.2   As regards dependent claims 2, 11 and 24 the *Mason* reference discloses a *"data storage*

system" (Col. 1 line 66).

3.3   As regards dependent claims 3, 14 and 26 the *Mason* reference discloses modifying

parameters to a desired level of performance (Col. 2 lines 21-31).

3.4   As regards dependent claims 6-9, 17-22, 23-25 and 29-31 the *Mason* reference discloses

a GUI (Col. 2 lines 22-31), with Bar graphs and scales (Col. 2 lines 58-67 and Col. 3 lines 1-2),

and an interactive real-time display of the changing system attributes via the GUI (Col. 5 lines

32-64).

3.5   As regards dependent claim 12 the *Mason* reference discloses assigning resources to

application because, the reference discloses setting QoS levels which is an assignment of system

bandwidth resources (Figure 3).

3.6   As regards dependent claim 13 the *Mason* reference discloses a design tool, for designing

a data storage system (Col. 1 line 66 and Figure 1).

Allowable Subject Matter

4.   Claims 4, 5, 15, 16, 26 and 27 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

4.1   The following is a statement of reasons for the indication of allowable subject matter:

As regards dependent claims 4, 15 and 26 the following limitations, in combination with other limitations are neither anticipated nor made obvious by the prior art, using dependent claim 4 as an example, *"wherein said reducing is based on at least one utility function representing utility as a function of one or more performance parameters."*

4.2   Claims 5, 16 and 27 depend from claims 4, 15 and 26 respectively and are therefore objected to for the same reasons.

Conclusion

5.   Claims 1-24 and 26-31 have been presented for reconsideration. Claims 1-3, 6-14, 17-24 and 28-31 are rejected. Claims 4, 5, 15, 16, 26 and 27 have been objected to.

5.1   This Office Action is Non-Final.

5.2   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5,088,058 discloses a method of modeling and predicting disk driver performance (Abstract).

US Patent 6,470,464 discloses a user interface for predicting utilization of computer system resources (Figure 5).

US Patent 5,668,995 discloses determining network utilization based on resource utilization (Figure 2B).

5.3   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M. Craig whose telephone number is (571) 272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

      If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

      Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMC

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Paul P. Rodriguez 3/2/06

Primary Examiner
Art Unit 2125
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